AMENDMENT

IN THE CLAIMS:

Please amend the claims to read as follows:

1. to 8. (Cancelled)

9.(Previously Presented) A method of managing a scheduling queue in a scheduler for a network processor, the scheduling queue having a range R, flows being attached to the scheduling queue at a distance D from a current pointer for the scheduling queue, the distance D being calculated for each flow according to the formula D = ((WF x FS)/SF), where:

WF is a weighting factor applicable to a respective flow;

FS is a frame size attributable to the respective flow; and

SF is a scaling factor;

the method comprising:

calculating the distance D with respect to a particular flow to be enqueued;

comparing the distance D to the range R;

adjusting the scaling factor SF based on a result of the comparing step; and

managing the scheduling queue based on the adjusted scaling factor SF.

10.(Original) The method of claim 9, wherein the scaling factor SF is increased if the comparing step determines that D > R.

11.(Original) The method of claim 9, wherein the scaling factor SF is decreased if the comparing step determines that D < R/2.

12.(Original) The method of claim 9, wherein SF = 2n, n being a positive integer, and the adjusting step includes incrementing or decrementing n.

13.(Previously Presented) A method of managing a scheduling queue in a scheduler for a network processor, the scheduling queue having a range R, flows being attached to the scheduling queue at a distance D from a current pointer for the scheduling queue, the distance D being calculated for each flow according to the formula D = ((WF x FS)/SF), where:

WF is a weighting factor applicable to a respective flow;

FS is a frame size attributable to the respective flow; and

SF is a scaling factor;

the method comprising:

calculating the distance D with respect to a particular flow to be enqueued;

comparing the distance D to the range R;

incrementing a counter if the comparing step determines that D > R;

increasing SF if the incremented counter exceeds a threshold; and

managing the scheduling queue based on the scaling factor SF.

14.(Original) The method of claim 13, wherein SF = 2n, n being a positive integer, and the increasing step includes incrementing n.

15.(Previously Presented) A method of managing a scheduling queue in a scheduler for a network processor, the scheduling queue having a range R, flows being attached to the scheduling queue at a distance D from a current pointer for the scheduling queue, the distance D being calculated for each flow according to the formula D = ((WF x FS)/SF), where:

WF is a weighting factor applicable to a respective flow;

FS is a frame size attributable to the respective flow; and

SF is a scaling factor;

the method comprising:

calculating the distance D with respect to a particular flow to be enqueued;

comparing the distance D to the range R;

incrementing a counter if the comparing step determines that D < R/2;

decreasing SF if the incremented counter exceeds a threshold; and

managing the scheduling queue based on the scaling factor SF.

16.(Original) The method of claim 15, further comprising:

clearing the counter if the comparing step determines that D > R/2.

17.(Original) The method of claim 15, wherein SF = 2n, n being a positive integer, and the decreasing step includes decrementing n.

18.(Previously Presented) A method of managing a scheduling queue in a scheduler for a network processor, the scheduling queue having a range R, flows being attached to the scheduling queue at a distance D from a current pointer for the scheduling queue, the distance D being calculated for each flow according to the formula D = ((WF x FS)/SF), where:

WF is a weighting factor applicable to a respective flow;

FS is a frame size attributable to the respective flow; and

SF is a scaling factor;

the method comprising:

calculating the distance D with respect to a particular flow to be enqueued;

comparing the distance D to the range R;

incrementing a first counter if the comparing step determines that D > R;

increasing SF if the incremented first counter exceeds a first threshold;

incrementing a second counter if the comparing step determines that D < R/2;

decreasing SF if the incremented second counter exceeds a second threshold; and

managing the scheduling queue based on the scaling factor SF.

19.(Original) The method of claim 18, further comprising:

clearing the second counter if the comparing step determines that D > R/2.

20.(Original) The method of claim 18, wherein SF = 2n, n being a positive integer, the increasing step includes incrementing n, and the decreasing step includes decrementing n.

21.(Previously Presented) A method of managing a scheduling queue in a scheduler for a network processor, the scheduling queue having a range R, flows being attached to the scheduling queue at a distance D from a current pointer for the scheduling queue, the distance D being calculated for each flow according to the formula D = ((WF x FS)/SF), where:

WF is a weighting factor applicable to a respective flow;

FS is a frame size attributable to the respective flow; and

SF is a scaling factor;

the method comprising:

calculating the distance D with respect to a particular flow to be enqueued;

comparing the distance D to the range R;

increasing SF if the distance D exceeds the range R; and

managing the scheduling queue based on the scaling factor SF.

22.(Previously Presented) A method of managing a scheduling queue in a scheduler for a network processor, the scheduling queue having a range R, flows being attached to the scheduling queue at a distance D from a current pointer for the scheduling queue, the distance D being calculated for each flow according to the formula D = ((WF x FS)/SF), where:

WF is a weighting factor applicable to a respective flow;

FS is a frame size attributable to the respective flow; and

SF is a scaling factor;

the method comprising:

calculating the distance D with respect to a particular flow to be enqueued;

comparing the distance D to the range R;

increasing SF if the distance D exceeds the range R;

incrementing a counter if the comparing step determines that $D < R/2$;

decreasing SF if the incremented counter exceeds a threshold; and

managing the scheduling queue based on the scaling factor SF.

23. to 33.(Cancelled)